REMARKS

Reconsideration and withdrawal of the restriction requirement, or at least reformulating it as herein suggested, e.g. with Groups I and III rejoined, is respectfully requested in view of the amendments and remarks herein.

I. STATUS OF CLAIMS AND FORMAL MATTERS

Claims 24-53 are pending in this application. Claims 24-46 have been amended to remove multiple dependencies, to correct dependencies and to place the claims in better form for prosecution; claims 47-53 have been added to round out the scope of protection to which Applicants are entitled. No new matter is added by this amendment.

The Examiner is thanked for his patience and insight in resolving the misnumbering of the claims.

It is submitted that the claims, herewith and as originally presented, are patentably distinct over the prior art cited by the Examiner, and that these claims were in full compliance with the requirements of 35 U.S.C. §112. The amendments of and additions to the claims, as presented herein, are not made for purposes of patentability within the meaning of 35 U.S.C. §§§§ 101, 102, 103 or 112. Rather, these amendments and additions are made simply for clarification and to round out the scope of protection to which Applicants are entitled. Support is found throughout the specification and from the pending claims.

II. RESTRICTION REQUIREMENT

The February 12, 2002 Office Action required restriction from among the following Groups:

Group I: Claims 24-29, 31-32 and 35-46, drawn to an isolated nucleic acid molecule encoding full-length wheat isoamylase, vectors, plant cells and plants transformed therewith, and a method of its use comprising plant transformation in sense orientation to produce the isoamylase protein and modified starch;

Group II: Claim 30, drawn to an oligonucleotide of 15 base pairs;

Group III: Claim 33, drawn to a vector for inhibiting expression of isoamylase genes by homologous cosuppression; and

Group IV: Claim 34, drawn to a vector for inhibiting expression of isoamylase genes by antisense RNA.

Applicants elect Group I, claims 24-29, 31-32 and 35-46, with traverse. It is additionally requested that new claims 47-53 be searched and examined with the claims of Group I. Applicants retain the right to file divisional applications to non-elected subject matter. Reconsideration and

withdrawal of the restriction requirement are respectfully requested in view of the remarks herewith.

As a traverse, it is noted that the MPEP lists two criteria for a proper restriction requirement. First, the inventions must be independent or distinct. MPEP § 803. Second, searching the additional inventions must constitute an undue burden on the examiner if restriction were not required. *Id.* The MPEP directs the examiner to search and examine an entire application "[i]f the search and examination of an entire application can be made without serious burden, ...even though it includes claims to distinct or independent inventions." *Id.*

At the very least, any search for the isolated nucleic acid molecules and vectors containing them of the Group I claims will certainly encompass references for the vectors of the Group III claims. These vectors contain the claimed nucleic acid in the sense orientation. The two groups are inextricably linked in that the vector of claim 33 is almost identical to the vector of claim 31, included in Group I, with the exception that it is linked to certain regulatory elements. This should not constitute a separate search and examination. Indeed, the result of the present restriction requirement is inefficiency and unnecessary expenditures by both the Applicants and the PTO and extreme prejudice to Applicants (particularly in view of GATT, a shortened patent term may result in any divisional applications filed).

Also, restriction has not been shown to be proper, especially since the requisite showing of serious burden has not been made in the Office Action and there are relationships between claims 24-29, 31-32 and 35-46 of Group I, particularly claim 31, and claim 33 of Group III. These factors mitigate against restriction. Therefore, it is respectfully submitted that it would not place an unnecessary burden on the Examiner to search and examine both groups together, as a search for the Group I nucleic acid molecule and vectors containing it would necessarily include the Group III vector.

It is evident that there is unity of invention in the pending claims, and in view of the foregoing, reconsideration and withdrawal of the restriction requirement and favorable consideration of all of the claims on the merits, are respectfully requested.

Respectfully submitted,
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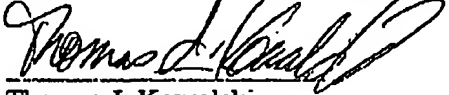
By: 

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the claims:

24. (Amended) An isolated nucleic acid molecule encoding a protein with the function of a wheat isoamylase, selected from the group consisting of

(a) a nucleic acid molecule encoding a protein comprising the amino acid sequence shown under SEQ ID NO: 2[Seq ID No. 3],

(b) a nucleic acid molecule comprising the nucleotide sequence shown under SEQ ID NO: 1[Seq ID No. 2] or a part thereof or a ribonucleotide sequence corresponding hereto;

(c) a nucleic acid molecule which hybridizes with a nucleic acid molecule mentioned under (a) or (b) or is complementary thereto, and

(d) a nucleic acid molecule whose nucleotide sequence deviates from the sequence of a nucleic acid molecule mentioned under (a), (b) or (c) owing to the degeneracy of the genetic code,

the nucleic acid molecule mentioned under (a), (c) and (d) having a homology of over 90% with SEQ ID NO: 1[Seq ID No. 2].

25. (Amended) The[A] nucleic acid molecule as claimed in claim 24[27] which is a DNA molecule.

26. (Amended) The nucleic acid[A DNA] molecule as claimed in claim 25[28] which is a cDNA molecule.

27. (Amended) The[A] nucleic acid molecule as claimed in claim 24[27] containing regulatory elements.

28. (Amended) The[A] nucleic acid molecule as claimed in claim 24[27] which is an RNA molecule.

29. (Amended) An isolated nucleic acid molecule which specifically hybridizes with the[a] nucleic acid molecule as claimed in claim 24[27] and has a homology of over 90% with SEQ ID NO: 1[Seq ID No. 2].

30. (Amended) The[A] nucleic acid molecule as claimed in claim 29[32] which[,] is an oligonucleotide with a length of at least 15 nucleotides.

31. (Amended) A vector containing the[a] DNA molecule as claimed in claim 24[27].

32. (Amended) The[A] vector as claimed in claim 31[34] wherein said nucleic acid molecule is linked in sense orientation to regulatory elements which ensure transcription and synthesis of a translatable RNA in pro- or eukaryotic cells.

33. (Amended) The[A] vector as claimed in claim 31[34] wherein said nucleic acid molecule is linked in sense orientation to regulatory elements which ensure the synthesis of an untranslatable RNA in pro- or eukaryotic cells.

34. (Amended) The[A] vector as claimed in claim 31[34] wherein said nucleic acid molecule is linked in antisense orientation to regulatory elements which ensure the synthesis of an untranslatable RNA in pro- or eukaryotic cells.

35. (Amended) A host cell which is transformed with the[a] nucleic acid molecule as claimed in claim 24[one or more of claims 27 to 31] or a vector as claimed in claim 31[one or more of claims 34 to 37] or a cell which is derived from the host[such a] cell.

36. (Amended) A process for the preparation of a protein encoded by the nucleic acid molecule as claimed in claim 24[39], wherein a host cell as claimed in claim 35[38] is cultured under conditions which permit said protein to be synthesized and said protein is isolated from the cultured cells and/or the culture medium.

37. (Amended) A process for generating a transgenic plant cell, wherein

a) the[a] nucleic acid molecule as claimed in claim 24[one or more of claims 27 to 37] or

b) the[a] vector as claimed in claim 31[one or more of claims to 34 to 37]

is integrated into the genome of a plant cell.

38. (Amended) A transgenic plant cell which has been transformed with the[a] nucleic acid molecule as claimed in claim 24[one or more of claims 27 to 30] or with the[one or more] vector as claimed in claim 31[claims 34 to 37] or a cell which is derived from the transgenic plant[such a] cell.

39. (Amended) A process for generating a transgenic plant cell, wherein

a1) the[a] nucleic acid molecule as claimed in claim 24[one or more of claims 27 to 31] or

a2) the[a] vector as claimed in claim 31[one or more of claims 34 to 37] is integrated into the genome of a plant cell and

b) an intact plant is regenerated from said plant cell.

40. (Amended) A plant containing the[a] plant cell as claimed in claim 38[41].

41. (Amended) The[A] plant as claimed in claim 40[43] which is a crop plant.

42. (Amended) The[A] plant as claimed in claim 41[44] which is a starch-storing plant.

43. (Amended) The[A] plant as claimed in claim 42[45] which is a monocotyledonous plant or maize.

44. (Amended) The[A] plant as claimed in claim 43[46] which is a barley, rye or wheat plant.

45. (Amended) A propagation material of the[a] plant as claimed in claim 40[one or more of claims 43 to 47].

46. (Amended) A process for the production of starch comprising isolating starch from the['The use of a] plant cell as claimed in claim 38,[41, a] the plant as claimed in claim 40[one or more of claims 43 to 47] or the[of] propagation material as claimed in claim 45[48 for the production of starch].